


## Efficacy Review

**Date:** July 12, 2010

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**Risk Manager Rev.:** ~~Clayton Myers~~ *Brenda Alexander*

**Products:** Talstar 2% MB Insecticide

**EPA Reg. #:** 279-3294

**A.I.'s:** Bifenthrin (2.0%)

**Decision #s:** 405022

**DP #s:** 362093

**Submission:** 570, Conditional Registration Follow-up data, RD Science Review

**MRIDs:** Submitted: 47644601

**GLP:** No

### MRID 47644601

**Title:** Resistance to Red Imported Fire Ant (*Solenopsis invicta*) damage of Bifenthrin Impregnated Perforated Plastic.

*Guideline:* OPPTS 810.3500

**Materials and Methods:** A 0.1% bifenthrin film (Weed-X AT, EPA Reg. No. not given) was assessed in the field for damage from red imported fire ants in comparison to an identical film without bifenthrin incorporated (Weed Proof). 6 replicates each of treated and untreated film (3' x 50' sheets) were installed per manufacturer's instructions (unknown, as no label is submitted for the EU product). Appendix photos indicate that sheeting was placed directly over grass and fire ant mounds, anchored by pins and/or surveying flags. Each sheet covered 2 active fire ant mounds. The study was repeated with both a baited and un-baited evaluation method. For both studies, a 1' diameter circular area in the center of the plastic sheet (either baited or un-baited) was evaluated and scored for ant damage (either damaged or undamaged). For the baited sheets, 4 covered peanut butter crackers were placed to attract foraging ants. Covers were placed to prevent destruction of bait by vermin.

**Study Summary of the Results:**

1. 100% of baited sites were attacked and damaged by ants in the untreated group, compared to 0% damage in the baited bifenthrin incorporated sheets.
2. Un-baited stations of either type were not heavily attacked by ants (only 1 of 6).
3. 100% prevention of fire ant damage was demonstrated for baited sheets.

**Entomologist's Observations/Discussion:**

Because this is a manufacturing-use product, there are no product-specific pest claims, except that the product is to be used "in the manufacture of plastic sheeting (film) to protect that product from subterranean termites and ants," incorporating the product into plastic sheeting to a maximum concentration of 0.1% w/w and a minimum film thickness of 0.5 mm. The product being assessed was a perforated 0.9 mm LDPE film with 0.1% bifenthrin.

No specific claim of 'kills' or 'controls' can be supported by this data, as ant mortality was not assessed. The only applicable claim/direction that can be supported is prevention/protection of plastic sheeting from attack by foraging red imported fire ants.

**Overall Review of Label Claims and Directions:**

The submitted data package is adequate to satisfy condition #1 on the stamped approved label notice, for the amendment to EPA Reg. No. 279-3294, dated June 18, 2007.